Claims:

1. A method for producing catalytically active layered silicates, especially nanoscale composite layered silicates, with one or more intercalated layers, especially Al-pillared and/or Ti-pillared clays, wherein a metal solution, preferably polycationic metal solution, is added to the layered silicate (3.1) and then the mixture is dried to generate the metal atom pillars that support the respective intercalated layer (4.1), wherein a metal salt, especially transition metal salt, is further added to the dry substance obtained in such a way to generate a dry mixture (5.1), and wherein the dry mixture is finally heated, so that the metal atoms or transition metal atoms become included in the intercalated layer (6.1).

2. A method according to claim 1, characterized in that an Al, Ti, Fe, Cu, Cr solution or a polyoxide mixture of these or similar metals is used as the metal solution.

3. A method according to claim 1 or 2, characterized in that the dry mixture is heated to values of higher than 300°C, especially between 450°C and 700°C.

4. A method according to one of claims 1 to 3, characterized in that the mixture of layered silicate and metal solution is first washed, then filtered and only thereafter heated slowly, whereupon the reaction of formation of the metal atom pillars takes place spontaneously at room temperature.

5. A method according to claim 4, characterized in that, following the described drying step, the substance is shock-heated, in order to achieve a homogeneous distribution of the dehydrated metal atom pillars in the intercalated layers.

6. A method according to claim 5, characterized in that the temperature gradient for the shock-heating step is adjusted such that a temperature rise of about 100°C or even greater per 10 minutes is achieved, the temperature being raised, for example from 100°C to 500°C in 30 minutes.

7. A method according to one of claims 1 to 6, characterized in that, after formation of the metal atom pillars in the intercalated layers, the layered silicate is processed by an acid treatment to a cationic condition or by an alkaline treatment to an anionic condition, then is washed and dried.

8. A method according to one of claims 1 to 7, characterized in that the metal salt or transition metal salt is formed as a salt based on transition metals such as copper, titanium, indium, cerium, lanthanum or the like.

9. A method according to claim 8, characterized in that the metal salt is copper nitrate or copper sulfate.

10. A method according to one of claims 1 to 9, characterized in that the substance resulting from the dry mixture is shaped, for example in the course of an extrusion operation, if necessary with addition of a binder, such as aluminum oxide.

11. A method according to claim 10, characterized in that the extruded product obtained in this way is dried.

12. A method according to one of claims 1 to 11, characterized in that a two-layer and/or three-layer mineral is used as the layered silicate.

13. A method according to one of claims 1 to 12, characterized in that the internal surface of the produced layered silicate has values of approximately 300 m^2/g and larger.

14. A modified layered silicate, which has been produced by the method according to claims 1 to 13.

15. The use of a modified layered silicate according to claim 14, for catalytic conversion of gases, preferably combustion gases, in motor vehicles in particular.